WHAT IS CLAIMED IS:

1. A scintillator panel comprising:

a phosphor layer for converting a radiation into light; and

a supporting member having a supporting substrate having radiation transmittable for supporting said phosphor layer,

wherein said supporting substrate is formed by laminating non-conductive layers for assuring non-conductivity of a surface which supports said phosphor layer of said supporting substrate and non-conductivity of an opposite surface which faces said surface and a rigidity holding layer for assuring rigidity of said supporting substrate.

2. A panel according to claim 1, wherein said supporting member is formed by further laminating moisture-proof metal foils onto said surface and said opposite surface of said supporting substrate.

3. A panel according to claim 1, wherein said rigidity holding layer is made of a resin which holds the rigidity and said non-conductive layer is formed by a precursor of the resin which holds the rigidity.

4. A panel according to claim 3, wherein said resin is made of an aromatic polyimide resin and said

precursor is made of an aromatic polyimide precursor.

5. A panel according to claim 2, wherein a thickness of said moisture-proof metal foil lies within a range from 10 to 100 μm.

6. A panel according to claim 1, wherein said supporting substrate is formed by laminating a plurality of said non-conductive layers and a plurality of said rigidity holding layers.

7. A panel according to claim 1, further comprising a moisture preventing protective layer which covers said phosphor layer and said supporting member.

8. A radiation detecting apparatus comprising:

the scintillator panel according to claim 1; and

a sensor panel including a plurality of photoelectric converting elements which are two-dimensionally arranged and convert the light converted in said phosphor layer into electric signals.

9. A radiation detection system including the radiation detecting apparatus according to claim 8.